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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| Applicant | : | Scott J. Jones, et al. |
| Appl. No. | : | 09/659,866 |
| Filed | : | September 12, 2000 |
| For | : | INTEGRATED EMERGENCY MEDICAL TRANSPORTATION DATABASE SYSTEM |
| Examiner | : | Vivek D. Koppikar |
| Group Art Unit | : | 3626 |

DECLARATION UNDER 37 C.F.R. § 131 TO OVERCOME AEROMED

1. This Declaration is to establish the status of the invention in the above-captioned U.S. patent application in the United States on February 5, 1998, which is the effective date of Aeromed (<http://www.aeromed-software.com>, February 5, 1998)
2. We are the named joint inventors of the described subject matter and all claims in the above-referenced application.
3. We have read the Office Action mailed September 21, 2004 (Paper No. 9) regarding the above-captioned application.
4. We developed our invention as described and claimed in the subject application in this country, as evidenced by the following events:
 - a. By at least February 5, 1998, we had conceived of a computerized system for managing airborne transportation of a patient.
 - b. A manuscript, entitled "An Object Oriented Client Server Solution to Air Medical Transport Documentation and Billing," was written prior to February 5, 1998. A copy of the portion of the manuscript describing the capabilities of the system is attached hereto as **Exhibit Sheets A1, A2, and A3**. Portions of **A1** and **A3** have been redacted. Three figures from the same manuscript are attached hereto as **Exhibit Sheets B1, B2, and B3**. **Exhibit Sheet B1** is a diagram of the system as a whole. **Exhibit Sheet B2** is a diagram of a Scheduling subcomponent, as discussed in **Exhibit Sheet A2**. **Exhibit Sheet B3** is a block diagram of a

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Dispatch module, as discussed in **Exhibit Sheets A2 and A3**. Each of the diagrams **B1, B2, and B3** is shown in object model notation.

- c. A document, entitled "Business Plan Summary," was written prior to February 5, 1998. A copy of the section entitled "Vision" is attached hereto as **Exhibit Sheet C**. A portion of this sheet has been redacted.
- d. A document, entitled "Life Flight-San Diego Integrated Information System: A Proposal for Implementation," was written prior to February 5, 1998. A copy of the section entitled "Operational Uses" is attached hereto as **Exhibit Sheet D**. A portion of this sheet has been redacted.
- e. A document containing drafts of the figures used in U.S. Patent Applications 09/033,440 (the priority application) and 09/659,866 (a continuation of the priority application) was created prior to February 5, 1998. Copies of Figures 3, 4A and 4B are attached hereto as **Exhibit Sheets E1, E2, and E3** respectively. Portions of these sheets have been redacted. Figure **E1** shows the flow of data between various modules in the system, including the Dispatch module. Figures **E2** and **E3** show part of the flow of information within the Dispatch module.
- f. The feature of the system regarding a first module comprising instructions for dispatching an aircraft carrying an airborne emergency transport crew to a patient site is shown in **Exhibit Sheets A1, A1, B1, B2, B3, and E2**. The system described is configured to receive and maintain information regarding scheduling, both of employees and vehicles, at particular locations. The last paragraph of **A1** describes a "Scheduling" module which can be used to prepare schedules for particular transport bases, including the work schedules of various employees (pilots, base physicians, crew members, and dispatchers) and the schedules for a stationed helicopter. Figure **B1** shows a "Scheduling" module with the scheduling information discussed in the last paragraph of **A1** and an "Update" module connected to the Scheduling module. Figure **B2** shows in greater detail the type of information that is maintained regarding employees and vehicles. The system has the capability to utilize this scheduling information in the dispatching of flights. The second paragraph of **A2** describes a "Schedule" subcomponent which uses shift information already entered in the Scheduling

module discussed above to generate a flight record based on the date, time, and base from which the flight takes place. Figure B3, which is a block diagram of a "Dispatch" module, uses information from the Scheduling module, as shown by the Scheduling module depicted therein. In dispatching a flight, the system also utilizes patient information and information regarding the scene to which the vehicle is being dispatched. The third paragraph of A2 describes a "Standby" subcomponent which is used by the dispatcher in the gathering of information regarding scene location, ground contacts and basic patient scenario and demographics. Figure B3 shows a "Standby" module which is used to gather information about the scene, as seen in the sub-blocks of the Standby block. Figure E2 shows the importation of shift information from the scheduling module prior to dispatching a flight.

- g. The feature of the system regarding a second module comprising instructions for generating a calculated flight path to the patient site is shown in **Exhibit Sheets A2, A3, B1, B3, C, D, and E1**. In order to generate a flight path, the system gathers information regarding the rendezvous and landing zone locations as well as the closest and receiving hospitals. The last paragraph of A2, which continues on to A3, discusses a "Flight" subcomponent which records rendezvous and landing zone information, with address and zip code, as well as Thomas Bros. references and waypoint longitude/latitude locations. In addition, information regarding the base hospital, closest hospital, and receiving hospitals are gathered. If a backup vehicle is required, flight information is transferred automatically from the primary response request data. Figure B1 shows a Dispatch module which is configured to generate flight information. This flight information includes the calculated flight path. Figure B3 shows a "Scene" module and its associated sub-modules, which are used to gather information regarding the destination of the aircraft. Figure B3 also shows a "Hospital" module and its associated sub-modules, which are used to gather and store the hospital information discussed above. The second paragraph of C describes the guiding of a helicopter directly to a scene by means of GPS coordinates forwarded to the helicopter. The third paragraph of D describes a database containing information regarding

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obstructions, wind direction, and landmarks, all of which can be utilized in the generation and description of a flight path. Figure E1 shows flight information as an output of the Flight subcomponent of the Dispatch module. This flight information includes the calculated flight path

- h. The feature of the system regarding a third module comprising instructions for tracking the actual flight path of the aircraft, and the feature of the system regarding a third module comprising instructions for tracking the flight coordinates of the aircraft are shown in **Exhibit Sheets A2, A3, B3, C, D, E1, and E3**. During flight, the position of the vehicle is tracked, and position and time stamp information is calculated and recorded. The last paragraph of **A2**, which extends onto **A3**, describes the Flight subcomponent, which tracks the aircraft through timed and recorded position checks. Time stamping of particular events, such as crew changes, is done through communication with the flight crew. Data is constantly updated, even during shift changes at the dispatching base. Figure **B3** shows a "Tracking" module for position tracking during flight and a "Stamping" module and associated sub-module for time stamping of particular events. Figures **E1** and **E3** show flight tracking as being done by a component of the Dispatch module. The system uses flight coordinates in the tracking of the aircraft. The sixth paragraph of **Exhibit Sheet D** describes the use of Loran coordinates in the tracking of the flights. The second paragraph of **Exhibit Sheet C** describes the use of GPS coordinates while in flight.
- i. The limitation regarding instructions for determining whether the actual flight path varies from the calculated flight path is shown in **Exhibit Sheets A2, A3, B3, and E3**. When a flight diversion or rerouting occurs, the system receives information regarding the reason and time for those events. The last paragraph of **A2**, which extends onto **A3**, describes the calculation of mileage and various times, such as flight time, based on the information recorded by the Flight subcomponent. After being compared against the previously calculated predicted course, if a diversion or rerouting has occurred, the reason and time for those events are entered into the system. Figure **B3** shows "Diversion" and "Rerouting" modules. As can be seen from the figure, the Diversion and

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Rerouting modules communicate with the Tracking module. Both the Diversion and Rerouting modules are configured to receive information regarding the time and reason for a discrepancy between the actual path, as determined by the Tracking module, and the calculated path, as determined by the Flight subcomponent of the Dispatch module. Figure E3 shows that the system checks for diversions once flight tracking begins, and if a diversion is found, the system asks for the reason for the diversion.

- j. After conception of the invention as discussed above, the invention was either actually reduced to practice or was undergoing due diligence to reduce to practice prior to February 5, 1998. A beta test version of the service was presented at the Air Medical Transport Conference in Cincinnati, which occurred prior to February 5, 1998.

5. Therefore, **Exhibit Sheets A1, A2, A3, B1, B2, B3, C, D, E1, E2, and E3** show aspects of the features of the system regarding a computerized system for managing airborne transportation of a patient, comprising a first module comprising instructions for dispatching an aircraft carrying an airborne emergency transport crew to a patient site, a second module comprising instructions for generating a calculated flight path to the patient site, and a third module comprising instructions for tracking the actual flight path of the aircraft and determining whether the actual flight path varies from the calculated flight path, as well as a third module further comprising instructions for tracking the flight coordinates of the aircraft, which were clearly conceived prior to February 5, 1998, and either actually reduced to practice or was undergoing due diligence to reduce to practice prior to February 5, 1998.

6. I, Scott J. Jones, am listed as an inventor on U.S. Patent Application 09/033,440, filed March 2, 1998, which is the priority application for the subject application. I, Kevin C. Hutton, am listed as an inventor on U.S. Patent Application 09/033,440, filed March 2, 1998, which is the priority application for the subject application.

7. All acts leading to the reduction to practice were performed in the United States.

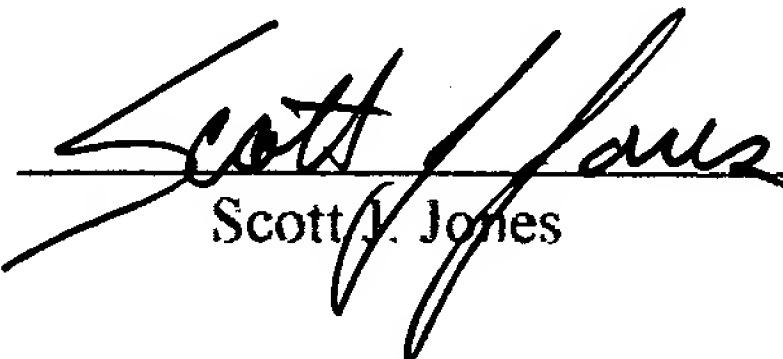
8. This document is submitted in response to a final rejection.

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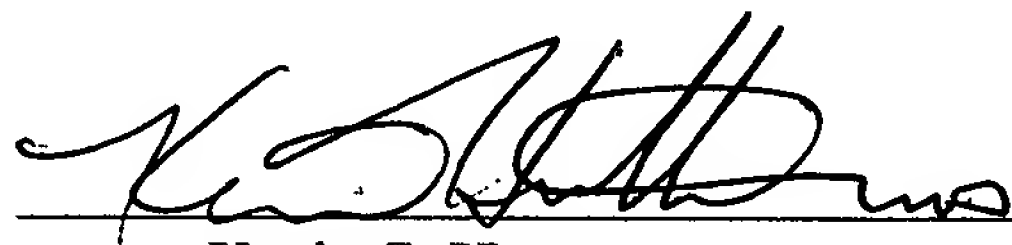
Penalty of Perjury Statement

We declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful, false statements may jeopardize the validity of the application or any patent resulting therefrom.

Dated: 12/8/04

By: 
Scott J. Jones

Dated: 11/29/04

By: 
Kevin C. Hutton

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